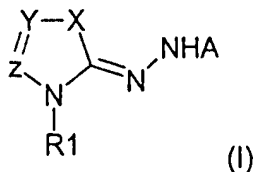


## CLAIMS

1. Ready-to-use agent for the simultaneous brightening and coloring of keratin fibers (A), based on a developer-coupler combination and having a basic pH, characterized in that it contains

(a) at least one heterocyclic hydrazone derivative of formula (I) or a physiologically compatible salt thereof



wherein

**X** denotes oxygen, sulfur or N-R<sub>2</sub>,

**Y** denotes C-R<sub>3</sub> or nitrogen and

**Z** denotes C-R<sub>4</sub> or nitrogen,

provided that the heterocyclic part of the compound of formula (I) contains at the most three heteroatoms;

**A** denotes hydrogen, an acetyl group, a trifluoroacetyl group, a formyl group, a (C<sub>1</sub>-C<sub>6</sub>)-alkylsulfonyl group or an arylsulfonyl group;

**R<sub>1</sub>** and **R<sub>2</sub>** can be equal or different and independently of each other denote a saturated or unsaturated (C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a halogen-substituted (C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a hydroxy-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, an amino-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a sulfonic acid-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a formyl group, a C(O)-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a C(O)-phenyl group, a C(O)NH-alkyl group, a C(O)NH-phenyl group, a substituted or unsubstituted phenyl group or a benzyl group;

**R<sub>3</sub>** and **R<sub>4</sub>** can be equal or different and independently of each other denote hydrogen, a halogen atom, a saturated or unsaturated (C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a halogen-substituted (C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a hydroxyl group, a hydroxy-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a (C<sub>1</sub>-C<sub>12</sub>)-alkoxy group, a cyano group, a nitro group, an amino group, a (C<sub>1</sub>-C<sub>12</sub>)-alkylamino group, a (C<sub>1</sub>-C<sub>12</sub>)-dialkylamino group, a carboxylic acid, a C(O)O-(C<sub>1</sub>-C<sub>12</sub>)-alkyl group, a substituted or unsubstituted C(O)O-phenyl group, a substituted or unsubstituted phenyl group or a naphthyl group;

and when **Y** and **Z** denote C-R<sub>3</sub> and C-R<sub>4</sub>, **R<sub>3</sub>** and **R<sub>4</sub>** together with the remainder of the molecule form a heterocyclic or carbocyclic, saturated or unsaturated, substituted or unsubstituted ring system;

(b) at least one known coupler or a physiologically compatible salt thereof; and

(c) as oxidant a combination of at least one persulfate salt and hydrogen peroxide and/or

an addition compound thereof.

2. Agent according to claim 1, characterized in that (i) **X** denotes sulfur, **Y** denotes C-R3, **Z** denotes C-R4 and **A** stands for a hydrogen atom, or (ii) **X** denotes N-R2, **Y** denotes nitrogen and **A** stands for a hydrogen atom.

3. Agent according to claim 1 or 2, characterized in that the hydrazone derivative of formula (I) is selected from among

3-methyl-2(3H)-thiazolone hydrazone,  
3,4-dimethyl-2(3H)-thiazolone hydrazone,  
4-tert.butyl-3-methyl-2(3H)-thiazolone hydrazone,  
3-methyl-4-phenyl-2(3H)-thiazolone hydrazone,  
3-methyl-4-(4-tolyl)-2(3H)-thiazolone hydrazone,  
4-(4-methoxy)phenyl-3-methyl-2(3H)-thiazolone hydrazone,  
4-(4-ethoxy)phenyl-3-methyl-2(3H)-thiazolone hydrazone,  
4-(4-bromophenyl)-3-methyl-2(3H)-thiazolone hydrazone,  
4-(3-bromophenyl)-3-methyl-2(3H)-thiazolone hydrazone,  
4-(4-chlorophenyl)-3-methyl-2(3H)-thiazolone hydrazone,  
4-(3-chlorophenyl)-3-methyl-2(3H)-thiazolone hydrazone,  
3-methyl-4(4-nitrophenyl)-2(3H)-thiazolone hydrazone,  
3-methyl-4(3-nitrophenyl)-2(3H)-thiazolone hydrazone,  
4-[(1,1'-biphenyl)-4-yl]-3-methyl-2(3H)-thiazolone hydrazone,  
3-methyl-4-(2-naphthalenyl)-2(3H)-thiazolone hydrazone,  
ethyl 2-hydrazono-2,3-dihydro-3-methyl-4-thiazolecarboxylate,  
3,4,5-trimethyl-2(3H)-thiazolone hydrazone,  
3,4-dimethyl-5-phenyl-2(3H)-thiazolone hydrazone,  
3,5-dimethyl-4-phenyl-2(3H)-thiazolone hydrazone,  
3-methyl-4,5-diphenyl-2(3H)-thiazolone hydrazone,  
5-ethyl-3-methyl-4-phenyl-2(3H)-thiazolone hydrazone,  
4-(4-bromophenyl)-3-methyl-5-phenyl-2(3H)-thiazolone hydrazone,  
3-methyl-5-phenyl-4-(4-tolyl)-2(3H)-thiazolone hydrazone,  
5-(4-chlorophenyl)-4-phenyl-3-methyl-2(3H)-thiazolone hydrazone,  
5-(4-chlorophenyl)-4-(4-methoxyphenyl)-3-methyl-2(3H)-thiazolone hydrazone,  
ethyl 2-hydrazono-2,3-dihydro-3,4-dimethyl-4-thiazolecarboxylate,  
4-amino-2-hydrazono-2,3-dihydro-3-methyl-5-thiazolecarbonitrile,  
3-ethyl-4,5-dimethyl-2(3H)-thiazolone hydrazone,  
ethyl 2-hydrazono-2,3-dihydro-3-ethyl-4-methylthiazolecarboxylate,

5-methyl-3-(1-methylethyl)-4-phenyl-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-(1-methylethyl)-4-phenyl-2(3H)-thiazolone hydrazone,  
 3-(1-methylethyl)-4,5-diphenyl-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-propyl-2(3H)-thiazolone hydrazone,  
 4,5-diphenyl-3-propyl-2(3H)-thiazolone hydrazone,  
 3-butyl-4,5-dimethyl-2(3H)-thiazolone hydrazone,  
 3-butyl-4,5-diphenyl-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-(2-methylpropyl)-2(3H)-thiazolone hydrazone,  
 3-(2-methylpropyl)-4,5-diphenyl-2(3H)-thiazolone hydrazone,  
 3-hydroxyethyl-2(3H)-thiazolone hydrazone,  
 3-hydroxyethyl-4-methyl-2(3H)-thiazolone hydrazone,  
 3-hydroxyethyl-4,5-dimethyl-2(3H)-thiazolone hydrazone,  
 3-aminoethyl-2(3H)-thiazolone hydrazone,  
 3-aminoethyl-4-methyl-2(3H)-thiazolone hydrazone,  
 3-aminoethyl-4,5-dimethyl-2(3H)-thiazolone hydrazone,  
 3,4-diphenyl-2(3H)-thiazolone hydrazone,  
 4-methyl-3-phenyl-2(3H)-thiazolone hydrazone,  
 4-p-biphenyl-3-phenyl-2(3H)-thiazolone hydrazone,  
 4-(4-methoxy)phenyl-3-phenyl-2(3H)-thiazolone hydrazone,  
 4-tert.butyl-3-phenyl-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-phenyl-2(3H)-thiazolone hydrazone,  
 5-methyl-3,4-diphenyl-2(3H)-thiazolone hydrazone,  
 3,4,5-triphenyl-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-(phenylmethyl)-2(3H)-thiazolone hydrazone,  
 3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4-methyl-3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4-tert.butyl-3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4-phenyl-3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4,5-diphenyl-3-(2-propenyl)-2(3H)-thiazolone hydrazone,  
 4,5-dimethyl-3-(phenylmethyl)-2(3H)-thiazolone hydrazone,  
 ethyl 2-hydrazono-2,3-dihydro-3-[(phenylamino)carbonyl]-4-methylthiazolecarboxylate,  
 3-methyl-4,5,6,7-tetrahydro-2(3H)-benzothiazolone hydrazone,  
 3-methyl-2(3H)-benzothiazolone hydrazone,  
 3,6-dimethyl-2(3H)-benzothiazolone hydrazone,  
 6-chloro-3-methyl-2(3H)-benzothiazolone hydrazone,  
 7-chloro-3-methyl-2(3H)-benzothiazolone hydrazone,

6-hydroxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 5-methoxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 7-methoxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 5,6-dimethoxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 5-ethoxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 6-ethoxy-3-methyl-2(3H)-benzothiazolone hydrazone,  
 3-methyl-5-nitro-2(3H)-benzothiazolone hydrazone,  
 3-methyl-6-nitro-2(3H)-benzothiazolone hydrazone,  
 5-acetamido-3-methyl-2(3H)-benzothiazolone hydrazone,  
 6-acetamido-3-methyl-2(3H)-benzothiazolone hydrazone,  
 5-anilino-3-methyl-2(3H)-benzothiazolone hydrazone,  
 6-anilino-3-methyl-2(3H)-benzothiazolone hydrazone,  
 2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolecarboxylic acid,  
 2-hydrazono-2,3-dihydro-3-methyl-4-benzothiazolesulfonic acid,  
 2-hydrazono-2,3-dihydro-3-methyl-5-benzothiazolesulfonic acid,  
 2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolesulfonic acid,  
 2-hydrazono-2,3-dihydro-3-methyl-7-benzothiazolesulfonic acid,  
 2-hydrazono-2,3-dihydro-N,N,3-trimethyl-6-benzothiazolesulfonamide,  
 [(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)oxy]acethydrazide,  
 3-methylnaphtho[2,3-d]thiazole-2(3H)-one hydrazone,  
 3-ethyl-2(3H)-benzothiazolone hydrazone,  
 6-ethoxy-3-ethyl-2(3H)-benzothiazolone hydrazone,  
 3-propyl-2(3H)-benzothiazolone hydrazone,  
 3-butyl-2(3H)-benzothiazolone hydrazone,  
 3-hexyl-2(3H)-benzothiazolone hydrazone,  
 3-hydroxyethyl-2(3H)-benzothiazolone hydrazone,  
 3-aminoethyl-2(3H)-benzothiazolone hydrazone,  
 3-p-methylbenzyl-2(3H)-benzothiazolone hydrazone,  
 2-hydrazono-2,3-dihydro-3-(2-hydroxyethyl)-6-benzothiazolecarboxylic acid,  
 2-hydrazono-2,3-dihydro-6-methoxy-3(2H)-benzothiazolepropanesulfonic acid,  
 6-hexadecyloxy-2-hydrazono-3(2H)-benzothiazolepropanesulfonic acid,  
 ethyl 2-keto-3-benzothiazoline acetate hydrazone,  
 3-acetyl-2(3H)-benzothiazolone hydrazone,  
 2-hydrazono-3(2H)-benzothiazole carboxaldehyde,  
 3-methyl-2(3H)-oxazolone hydrazone,  
 3-phenyl-2(3H)-oxazolone hydrazone,  
 3-methyl-2(3H)-benzoxazolone hydrazone,

3-phenyl-2(3H)-benzoxazolone hydrazone,  
 1,3-dimethyl-4-imidazolin-2-one hydrazone,  
 1,3-diethyl-4-imidazolin-2-one hydrazone,  
 1,3-dihydroxyethyl-4-imidazolin-2-one hydrazone,  
 1,3-diaminoethyl-4-imidazolin-2-one hydrazone,  
 1,3-dimethyl-4-methoxy-4-imidazolin-2-one hydrazone,  
 1,3,4-trimethyl-4-imidazolin-2-one hydrazone,  
 1,3-dimethyl-4-phenyl-4-imidazolin-2-one hydrazone,  
 4-carboxy-1,3-dimethyl-4-imidazolin-2-one hydrazone,  
 4-amino-1,3-dimethyl-4-imidazolin-2-one hydrazone,  
 1,3-dimethyl-4-dimethylamino-4-imidazolin-2-one hydrazone,  
 1,3-dimethyl-2-benzimidazolinone hydrazone,  
 1,3-diethyl-2-benzimidazolinone hydrazone,  
 1,3-dihydroxyethyl-2-benzimidazolinone hydrazone,  
 1,3-diaminoethyl-2-benzimidazolinone hydrazone,  
 1,3,5-trimethyl-2-benzimidazolinone hydrazone,  
 5-methoxy-1,3-dimethyl-2-benzimidazolinone hydrazone,  
 5-bromo-1,3-dimethyl-2-benzimidazolinone hydrazone,  
 4,6-dibromo-1,3-dimethyl-2-benzimidazolinone hydrazone,  
 5-chloro-1,3-dimethyl-2-benzimidazolinone hydrazone,  
 1,3-dimethyl-5-nitro-2-benzimidazolinone hydrazone,  
 1,3-dimethyl-6-nitro-2-benzimidazolinone hydrazone,  
 1,4-dimethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,4-dihydroxyethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,4-diaminoethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,3,4-trimethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,4-dimethyl-3-phenyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,4-dimethyl-3-methoxy- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 1,4-dimethyl-3-dimethylamino- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 4-carboxy-1,4-dimethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 4-amino-1,4-dimethyl- $\Delta^2$ -1,2,4-triazolin-5-one hydrazone,  
 4-butyl-1-methyl-3-phenyl- $\Delta^2$ -1,3,4-triazolin-5-one hydrazone,  
 4-methyl- $\Delta^2$ -1,3,4-thiadiazolin-5-one hydrazone,  
 4-hydroxyethyl- $\Delta^2$ -1,3,4-thiadiazolin-5-one hydrazone,  
 4-aminoethyl- $\Delta^2$ -1,3,4-thiadiazolin-5-one hydrazone,  
 4-methyl-2-phenyl- $\Delta^2$ -1,3,4-thiadiazolin-5-one hydrazone,  
 2-methoxy-4-methyl- $\Delta^2$ -1,3,4-thiadiazolin-5-one hydrazone,

2-anilino-4-methyl- $\Delta$ 2-1,3,4-thiadiazolin-5-one hydrazone,  
 2-amino-4-methyl- $\Delta$ 2-1,3,4-thiadiazolin-5-one hydrazone,  
 2-dimethylamino-4-methyl- $\Delta$ 2-1,3,4-thiadiazolin-5-one hydrazone,  
 4-methyl-2-(methylthio)- $\Delta$ 2-1,3,4-thiadiazolin-5-one hydrazone,  
 4-(5-hydrazono-4,5-dihydro-4-methyl-1,3,4-thiadiazol-2-yl)benzenesulfonyl fluoride,  
 4-methyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 4-hydroxyethyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 4-aminoethyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 4-methyl-3-phenyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 3-methoxy-4-methyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 3-amino-4-methyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 3-dimethylamino-4-methyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 3-carboxy-4-methyl- $\Delta$ 2-1,2,4-thiadiazolin-5-one hydrazone,  
 1,4-dimethyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone,  
 1,4-dihydroxyethyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone,  
 1,4-diaminoethyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone,  
 1,3,4-trimethyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone,  
 1,4-dimethyl-3-phenyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone and  
 4-methyl-3-phenyl- $\Delta$ 2-1,2,4-triazolin-5-one hydrazone.

4. Agent according to one of claims 1 to 3, characterized in that the coupler is selected from among N-(3-dimethylaminophenyl)urea, 2,6-diaminopyridine, 2-amino-4-[(2-hydroxyethyl)amino]anisole, 2,4-diamino-1-fluoro-5-methylbenzene, 2,4-diamino-1-methoxy-5-methylbenzene, 2,4-diamino-1-ethoxy-5-methylbenzene, 2,4-diamino-1-(2-hydroxyethoxy)-5-methylbenzene, 2,4-di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene, 2,3-diamino-6-methoxypyridine, 3-amino-6-methoxy-2-(methylamino)pyridine, 2,6-diamino-3,5-dimethoxypyridine, 3,5-diamino-2,6-dimethoxypyridine, 1,3-diaminobenzene, 2,4-diamino-1-(2-hydroxyethoxy)benzene, 1,3-diamino-4-(2,3-dihydroxypropoxy)benzene, 1,3-diamino-4-(3-hydroxypropoxy)benzene, 1,3-diamino-4-(2-methoxyethoxy)benzene, 2,4-diamino-1,5-di(2-hydroxyethoxy)benzene, 1-(2-aminoethoxy)-2,4-diaminobenzene, 2-amino-1-(2-hydroxyethoxy)-4-methylaminobenzene, 2,4-diaminophenoxyacetic acid, 3-[di(2-hydroxyethyl)amino]aniline, 4-amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene, 5-methyl-2-(1-methyl-ethyl)phenol, 3-[(2-hydroxyethyl)amino]aniline, 3-[(2-aminoethyl)amino]aniline, 1,3-di(2,4-diaminophenoxy)propane, di(2,4-diaminophenoxy)methane, 1,3-diamino-2,4-dimethoxybenzene, 2,6-bis-(2-hydroxyethyl)aminotoluene, 4-hydroxyindole, 3-dimethylaminophenol, 3-diethylaminophenol, 5-amino-2-methylphenol, 5-amino-4-fluoro-2-methylphenol, 5-amino-

4-methoxy-2-methylphenol, 5-amino-4-ethoxy-2-methylphenol, 3-amino-2,4-dichlorophenol, 5-amino-2,4-dichlorophenol, 3-amino-2-methylphenol, 3-amino-2-chloro-6-methylphenol, 3-aminophenol, 2-[(3-hydroxyphenyl)amino]acetamide, 5-[(2-hydroxyethyl)amino]-4-methoxy-2-methylphenol, 5-[(2-hydroxyethyl)amino]-2-methylphenol, 3-[(2-hydroxyethyl)amino]-phenol, 3-[(2-methoxyethyl)amino]phenol, 5-amino-2-ethylphenol, 5-amino-2-methoxyphenol, 2-(4-amino-2-hydroxyphenoxy)ethanol, 5-[(3-hydroxypropyl)amino]-2-methylphenol, 3-[(2,3-dihydroxypropyl)amino]-2-methylphenol, 3-[(2-hydroxyethyl)amino]-2-methylphenol, 2-amino-3-hydroxypyridine, 2,6-dihydroxy-3,4-dimethylpyridine, 5-amino-4-chloro-2-methylphenol, 1-naphthol, 2-methyl-1-naphthol, 1,5-dihydroxynaphthalene, 1,7-dihydroxynaphthalene, 2,3-dihydroxynaphthalene, 2,7-dihydroxynaphthalene, 2-methyl-1-naphthol acetate, 1,3-dihydroxybenzene, 1-chloro-2,4-dihydroxybenzene, 2-chloro-1,3-dihydroxybenzene, 1,2-dichloro-3,5-dihydroxy-4-methylbenzene, 1,5-dichloro-2,4-dihydroxybenzene, 1,3-dihydroxy-2-methylbenzene, 3,4-methylenedioxyphenol, 3,4-methylenedioxyaniline, 5-[(2-hydroxyethyl)amino]-1,3-benzodioxole, 6-bromo-1-hydroxy-3,4-methylenedioxybenzene, 3,4-diaminobenzoic acid, 3,4-dihydro-6-hydroxy-1,4(2H)benzoxazine, 6-amino-3,4-dihydro-1,4(2H)benzoxazine, 3-methyl-1-phenyl-5-pyrazolone, 5,6-dihydroxyindole, 5,6-dihydroxyindoline, 5-hydroxyindole, 6-hydroxyindole, 7-hydroxyindole and 2,3-indolinedione.

5. Agent according to one of claims 1 to 4, characterized in that the persulfate salt is selected from among potassium persulfate, sodium persulfate and ammonium persulfate.

6. Agent according to one of claims 1 to 5, characterized in that it contains the hydrazone derivatives of formula (I), the couplers and the persulfate salts in a total amount of 0.01 to 10 weight percent, each.

7. Agent according to one of claims 1 to 6, characterized in that it additionally contains from 0.01 to 10 weight percent of a physiologically harmless direct dye.

8. Agent according to one of claims 1 to 7, characterized in that it has a pH from 7 to 10.

9. Agent according to one of claims 1 to 8, characterized in that it is a hair colorant.

10. Multicomponent kit consisting of a dye carrier composition (A1) containing a compound of formula (I), another dye carrier composition (A2) containing the couplers and persulfate salts and an aqueous composition (A3) containing hydrogen peroxide or an addition compound thereof, as well as optionally an agent for adjusting the pH.

11. Multicomponent kit consisting of a powder (component 1) containing the compounds of formula (I), the couplers, the persulfate salts and optionally the alkalizing agent as well as other common powdered cosmetic additives, and an aqueous cosmetic preparation (component 2) containing hydrogen peroxide and/or an addition compound thereof.

12. Method for the simultaneous brightening and coloring of hair whereby a colorant according to one of claims 1 to 9 is applied to the hair, and after an exposure time of 5 to 60 minutes at a temperature of 20 to 50 °C the hair is rinsed with water, optionally washed with a shampoo and then dried.